

Title (en)  
TOUCH SENSING UNIT AND DISPLAY DEVICE INCLUDING THE SAME

Title (de)  
BERÜHRUNGSEMPFINDLICHE EINHEIT UND ANZEIGEVORRICHTUNG DAMIT

Title (fr)  
UNITÉ DE DÉTECTION TACTILE ET AFFICHEUR LA COMPRENANT

Publication  
**EP 4137922 A1 20230222 (EN)**

Application  
**EP 22186962 A 20220726**

Priority  
KR 20210101981 A 20210803

Abstract (en)  
A touch sensing device includes first sensor electrodes disposed in a first area, second sensor electrodes disposed in a second area, first sensor lines each connected to the first sensor electrodes in the first area, and second sensor lines each connected to the second sensor electrodes in the second area. Each of the second sensor lines includes a first sub-sensor line disposed in the second area, and a second sub-sensor line disposed in the first area and the second area and connected to the first sub-sensor line.

IPC 8 full level  
**G06F 3/041** (2006.01); **G06F 3/044** (2006.01); **G09G 3/00** (2006.01)

CPC (source: EP KR US)  
**G06F 3/0412** (2013.01 - EP KR US); **G06F 3/04164** (2019.04 - EP KR); **G06F 3/044** (2013.01 - KR); **G06F 3/0443** (2019.04 - EP); **G06F 3/0446** (2019.04 - EP US); **G06F 3/0448** (2019.04 - EP); **G09G 3/035** (2020.08 - EP); **G06F 2203/04102** (2013.01 - EP); **G06F 2203/04103** (2013.01 - EP); **G06F 2203/04111** (2013.01 - EP); **G09G 2300/0426** (2013.01 - EP); **G09G 2354/00** (2013.01 - EP); **G09G 2380/02** (2013.01 - EP)

Citation (search report)

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- [A] US 10873043 B2 20201222 - JIN JAEHYUN [KR]
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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4137922 A1 20230222**; CN 115705108 A 20230217; KR 20230020612 A 20230213; US 11579739 B1 20230214; US 12032795 B2 20240709; US 2023038020 A1 20230209; US 2023195270 A1 20230622

DOCDB simple family (application)  
**EP 22186962 A 20220726**; CN 202210838865 A 20220718; KR 20210101981 A 20210803; US 202217697073 A 20220317; US 202318108220 A 20230210